The ‘Society of Corresponding Botanists’ as *Pflanzschule* for botanical gardens

(1) Introduction

Our society of corresponding botanists will be heard again, as soon as the new secretary Hofmeister will arrive at Marktbreit. All recently admitted members have written, many attested their delight, promised contributions, as for instance Dr. Lehmann about magazine articles by German botanists, Kunze in Leipzig about epiphytes, Sadler about his latest voyage through Hungary, with regard to plants, they’re not very enthusiastic.

These are the words that, in 1816, Christian Gottfried Nees von Esenbeck (1776–1858) — the future professor of botany and Leopoldina-president — wrote to the Munich botanist Carl Friedrich Philipp Martius (1794–1868) who was to set out on his voyage to Brazil the following year.

A Society of Corresponding Botanists? Neither in library catalogues nor in relevant search engines on the Internet you will find anything about it.

This society existed during the first decades of the 19th century. It appears to have been a “Pflanzschule” — a plant nursery — where not only various kinds of plants were thriving, but also young people were given the opportunity to evolve into experienced botanists. This society, which is even hardly known in the history of science, shall be the subject of the presentation.

While inquiring persons for a historical pharmacy subject, Bastian Röther came across the Society of Corresponding Botanists. The many tesserae he had brought together over several months, show a surprising network that worked Europe-wide. In this network, we find many of the roots of the large-scale and close connections between botanists and Nees von Esenbeck.

Presenting the first research results, the paper starts with the foundation of the society. After that the society’s activities, the structure of membership, and eventually the fields of the members’ close cooperation in subsequent times are presented, in order to suggest the intense exchange of knowledge and material.

The sources were primarily printed sources, such as the revised statutes of 1817 and the first volumes of the re-published journal *Flora oder Botanische Zeitung* which started in 1818. In addition,
we used unprinted sources which are mainly the correspondence among the members. Until now, we were not able to completely evaluate all of the letters we have found. Therefore, there are still many questions to respond.

(2) Foundation of the society in 1815

The impetus for the society’s foundation, which was originally concentrated on the Franconian region, came from Switzerland strictly speaking from the places where German future pharmacists served as “Gehilfen” that is as “assistants”. Like many young men who were trained to be a pharmacist, Friedrich Nees (1787–1837), the younger brother of Christian Gottfried Nees von Esenbeck, too, proceeded to Switzerland after finishing his six-year studies as a pharmacist in Ernst Wilhelm Martius’ (1756–1849) pharmacy in Erlangen. From 1811 to 1816, he served at Hieronymus Bernoulli’s (1745–1829) “Goldene Apotheke” in Basel. His two mentors at Erlangen and Basel took a favourable view of the botanic interests of their pharmaceutical assistants by organising or agreeing to botanic excursions; Bernoulli even paid them travel expenses.

Together with his German colleagues, Justus Christian Naumann (1789–?), Georg Hofmeister (1789–?), Wilhelm Raab (1788–1835) and others, who were nearly of the same age, Friedrich Nees botanised in the Swiss Alps. All plants unknown to them, they sent to the Franconian Sickershausen (near Würzburg) to have them identified by Christian Gottfried Nees von Esenbeck. This exchange of information, of plant seeds and herbarium material took place over several years. Therefore, in spring of 1815, Nees von Esenbeck took up Christian Friedrich Hornschuch’s (1793–1850) proposal to give the continually growing botanical correspondence a steady frame.

In 1815, the following persons founded the Society of Corresponding Botanists: David Heinrich Hoppe (1760–1846), Heinrich Christian Funck (1771–1839), and Christian Gottfried Nees von Esenbeck, as appointed chairmen. Apart from Georg Gerlach, a factory owner from Schweinfurt, the founding members were future pharmacists: Christian Friedrich Hornschuch, Anton Hofmann (1794–1831), Gerlach, who was the society’s first secretary, and the pharmacist Wilhelm Raab, who was Ernst Wilhelm Martius’ student and relative.

Gerlach, who was the society’s first secretary, and the pharmacist Wilhelm Raab, who was Ernst Wilhelm Martius’ student and relative.

4 Flora oder Botanische Zeitung. Jg. 1818–1823.

5 The Archives of the Leopoldina (Halle) still keep some letters of the society’s members written to Nees von Esenbeck, e.g.: by the co-director Heinrich Christian Funck, by Franz Xaver Heller (1775–1840) and Ambrosius Rau (1782–1830), both professors in Würzburg and free members of the society, further the working members Gustav Kunze, Christian Friedrich Hornschuch, later professors of Botany: Kunze in Leipzig and Hornschuch in Greifswald, in addition the future pharmacists Georg Friedrich Hoechstetter (1793–1833), Georg Hofmeister, Justus Christian Naumann and Wilhelm Raab.

6 After ending the apprenticeship and before getting the licence, the skilled pharmacists spent a few years as assistants in the house of another principal. Many went abroad, e.g. in this case to Switzerland.

7 To find out the number and influence of German pharmacists in Switzerland during the 19th century please compare: Fehlmann, Sabine Irène: “Deutsche Apotheker in der Schweiz. Zum Phänomen einer bedeutungsvollen Migration im 19. Jahrhundert und deren Einfluss auf die Schweizer Pharmazie; demographische, kausale, entwicklungs- und wissenschaftsbezogene Aspekte”. Veröffentlichungen der Schweizerischen Gesellschaft für Geschichte der Pharmazie 16. Bern 1997. In the 19th century, much more than 100 German pharmacists lived in Switzerland during their assistance and later returned to Germany.


10 At this time, Christian Friedrich Hornschuch took classes at the pharmacist Heinrich Christian Funck in Gefrees, and had corresponded with Nees von Esenbeck since 1814. He thanked Nees in Sickershausen for the “kindhearted support” at the foundation of the society on 7 March 1815. Hornschuch to Nees von Esenbeck, Gefrees 7.3.1815. Leopoldina-Archiv Halle, 105/1/3. Cf. Röther (2006), p. 60.

Until now, we know just one copy of the printed version of the society’s statutes from 1817. The original — probably handwritten — version being revised, it was printed because of the growing number of members. The thirty pages of the articles inform about the reasons of the association, member structure, terms of admission, and the rights and duties of every member.\(^{12}\)

\[ \text{Statuten der Gesellschaft correspondirender Botaniker} \]

\[ \text{Bienn. Univers. Lips.} \]

\[ \text{Fig. 1: Statuten der Gesellschaft correspondirender Botaniker (Marktbreit 1817).} \]

\[ \text{The Statutes of the Society of Corresponding Botanists.} \]

Firstly, the society considered itself to be an amicable and non-profit association, that wanted to serve botany by communicating with each other, by informing each other about discoveries and by exchanging plants and seeds of native flora. Secondly, the society was an educational establishment for young friends of botany, who couldn’t afford to attend scientific lessons in this field.\(^{13}\)

\(^{11}\) This copy, being kept at the Library of Leipzig University not only includes the statutes and the member list dated 22 January 1817, but also a handwritten list of members who were accepted at a later date.

\(^{12}\) Statuten (1817). Apart from basical differences, the statutes also show common characteristics to the Regensburg Botanical Society, which was 25 years older.

\(^{13}\) Certainly, the Regensburg Botanical Society, pursued the same goals, but it was more aimed at the area around Regensburg. The members were obliged to take part in weekly excursions and therefore they were attached to a certain place. In addition on request, regular members had to inform non-local members about plants and seeds of the Regensburg area. However, non-local members were not involved in the exchange of excursions reports.
The membership of the Society of Corresponding Botanists was formally divided into free members and working members. The principle of the „Corresponding Members“ \( ^{14} \) which was quite common in scientific societies, became an end in itself. Consequently, they did not plan any regular general meetings. Scientists or graduates who rendered outstanding services to botany were admitted as free members. They did not need to be botanists. They were regarded as decoration of the society.

The working members formed two classes. \( ^{15} \) Members of the first class were either scholarly botanists or admirers and supporters of botany. Members of the second class regarded the society as educational establishment; they joined the society in order to support its aims and to learn more about botany. After a two-year membership they, without any formalities, were admitted to the first class.

(3) Activities and the structure of membership

The exchange among the corresponding members was regulated in the statutes and supervised by the secretary. \( ^{16} \) Over the year, he had to collect papers and announcements from members, that he put in circulation in winter.

The circular included a detailed circular list, in which the members had to confirm the date they had received and sent it to the next member. It also included a complete list of all papers the parcel contained, and a list of all letters the secretary had received but never put in circulation.

Annually, an updated list of addresses was enclosed, in order to facilitate the correspondence between the members. The secretary should actually centralize the exchange of plants, which would have made up most of his work. But in reality, the members seemed to exchange their plants and seeds directly without passing the secretary. \( ^{17} \)

There are three different types of members, who received either complete circulars (including reports on excursions) or a list of letters and scripts or double lists of plants. \( ^{18} \)

The letters that we found until now, show that the members preferred the customary exchange of plants while passing the desiderata list directly to the correspondent partner. It was one of the first attempts to organise plant exchange in Germany. A great importance was given to the exchange of plants, since every member must have been anxious to own a complete collection of their native flora.

Any time, the members could publish their papers. While doing so, any relation to the Society of Corresponding Botanists was to be avoided, because the society focused on researching the nature rather than publishing papers. This passage of the statutes distinguished this society considerably from other scientific societies, which, as public associations, often published their own journals to give their members the opportunity of presenting their research results. Probably, this was one of the main reasons that the society, even by contemporaries and researchers of following generations, was hardly ever noticed — finally, it fell into oblivion. \( ^{19} \)

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\( ^{14} \) The Society of Corresponding Pharmacists in Augsburg, founded in 1803, might have served as a model for the society’s organisation. Cf. Röther (2006), p. 61.

\( ^{15} \) The member list, printed in the statutes of 1817, shows merely a division into free and working members. There is no reference to any assessment work for the admission.

\( ^{16} \) The secretary managed the entire correspondence as well as the formalities concerning the admission of new members and the distribution of the circulars. He also administered the member list, a list of papers, suggestions, drawings and plant indices as well as the association’s finances. The duration of the position was originally limited to one year, because of the high demands of their secondary “employment”. Secretaries: 1815 Georg Gerlach, manufacturer in Schweinfurt; 1816–1819 Georg Hofmeister, pharmacist in Marktbreit; 12/1819–8/1821 Wilhelm Raab, pharmacist in Creussen; 8/1821–? Georg Friedrich Hoechstetter, pharmacist in Pappenheim.

\( ^{17} \) Today, it is difficult to judge, whether and in which dimension the members complied with their chartered obligations; until now, no circular of the society has been found. But generally speaking, the network seemed to have worked, as we can see from the announcement of Christian Wilhelm Raab, secretary of the society from 1818–1821, in the Flora. Cf. Raab, Wilhelm (1819): “* An die Mitglieder des Vereins correspondirender Botaniker in Franken”, Flora, Bd. 2 (1819), p. 751 et seq. Although no circulars could be proved until now, the correspondence of the members give some oblique indications showing the activity of the society. Furthermore, the Indices collectorum of the various herbariums permit conclusions about the cooperation of the members.

\( ^{18} \) Statuten (1817), p. 7 et seq., Section 4, § 3.

\( ^{19} \) We hardly find an indication of the society in the publication of the members and in the than usual lists of memberships on the front pages of monographs. As an example: Kunze, Gustav (1818): “Entomologische Fragmenten”,
Every member was allowed to propose new members: for instance, on recommendation of the medical student Gustav Kunze (1793–1851), director Nees von Esenbeck proposed the Saxon medical student Johann Karl Schmidt (1793–1850). The working member, pharmacist Justus Christian Naumann, proposed both, the teacher Hermann Lorenz Weniger and the pharmacist Johann Friedrich Sehlmeyer (1788–1856). Frequently, pharmacists were proposed by pharmacists and physicians by physicians. The membership was confirmed by the signature of the board of directors, and by handing out the membership-card as well as a copy of the statute.

There were much more people who joined the society than its founding members had ever expected. Apart from future pharmacists, there were also gardeners, medical students, professors of botany, teachers, businessmen and lawyers.

The new members did not only come from the Franconian region but also from Hamburg, Königsberg, Dresden, Leipzig, Vienna, Parma, Pest in Hungary, Paris and Moscow.

![Image](image.jpg)

Fig. 2: "*An die Mitglieder des Vereins correspondirender Botaniker*, Flora 3 (1820), pp. 492–493, here p. 492.


[21] Naumann to Nees von Esenbeck, Köln 4.3.1817. Bayerische Staatsbibliothek München, Petzetiana V.
A multiplier of the society was, for example, Hoppe who had intensive contacts to Austria, and therefore proposed Alois Traunfellner (1782–1840) and Ferdinand Hauser (1795–1868), both from Klagenfurt and Villach respectively, and Paul Maria Partsch (1791–1856) from Vienna. Another multiplier was Funck, who proposed Christiaan Hendrik Persoon (1761–1836) and Georges L. Toscan (1756–1826), who both lived in Paris.

Many members of the society sooner or later became also members of other societies, for example of the Regensburg Botanical Society or the Imperial Leopoldinian-Carolinian Academy, of which Christian Gottfried Nees von Esenbeck had been the president since 1818.

Inspite of avoiding publicity, the number of the members grew more and more, and made the system of the “winter circular” impossible. This is the reason why, in 1817, the future publishers of the botanical journal *Flora*, decided to include the news, correspondence, essays, notes, excursion announcements and excursion descriptions as well as exchange catalogues and desiderata catalogues of the society’s members. They were marked by the cipher * (Asterisk). Thus, *Flora*, the botanical journal of the Regensburg Botanical Society, which was edited by Hoppe, became an unofficial organ of the Society of Corresponding Botanists in 1818. Until 1823, there could be found numerous papers marked by this cipher.

(4) Later fields of cooperation
Sources show that, in the following years, the members used to keep in contact, which supported the scientific work enormously and yielded literary and material fruit.

An example will show the work of the society. Since 1817, Johannes Becker (1769–1833) has worked as first botanist and gardener at the Senckenberg Natural History Society (Senckenbergische naturforschende Gesellschaft) in Frankfurt. In order to provide the neglected garden of the Senckenberg Stiftung with new plants and seeds, he started scientific exchange with other botanists already before 1816.

The preserved correspondence in Frankfurt on the Main from 1817 until 1834 indicates his efforts to win new plants for the garden. For this reason, Becker was in contact with many members of the society, too. Among other letters, the ones from Hoppe in Regensburg, Johann Georg Christian Lehmann (1792–1860) in Hamburg, Martius in Munich, the brothers Nees von Esenbeck in Sickershausen and Bonn, and Diederich Franz Leonhard von Schlechtendal (1794–1866) in Berlin are still known.

<table>
<thead>
<tr>
<th>Name</th>
<th>Live time</th>
<th>Member of SCB</th>
<th>Member of RBS</th>
<th>Function at the time of admission (SCB)</th>
<th>Function in subsequent times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Becker, Johannes</strong></td>
<td>1769–1833</td>
<td>1817</td>
<td>1827</td>
<td>Prof., founding member and 1st botanist of Senckenberg Natural History Society</td>
<td>Botanist of Senckenberg Natural History Society, 1817–1827</td>
</tr>
<tr>
<td><strong>Chamisso, Adelbert von</strong></td>
<td>1781–1838</td>
<td>1820</td>
<td>1824</td>
<td>Curator, BG Berlin</td>
<td>Curator, BG Berlin</td>
</tr>
<tr>
<td><strong>Eysenhardt, Karl Wilhelm</strong></td>
<td>1794–1825</td>
<td>a. 1817</td>
<td></td>
<td>med. stud., Berlin</td>
<td>Dir. BG Königsberg</td>
</tr>
</tbody>
</table>


24 Conert (1987), p. 200. Becker joined various scientific societies, as e.g. in 1816 the Wetterauische naturforschende Gesellschaft, in 1817 the Society of Corresponding Botanists, in 1827 the Regensburg Botanical Society.

### Table of Corresponding Botanists

<table>
<thead>
<tr>
<th>Name</th>
<th>Live time</th>
<th>Member of SCB</th>
<th>Member of RBS</th>
<th>Function at the time of admission (SCB)</th>
<th>Function in subsequent times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heller, Franz Xaver</strong></td>
<td>1775–1840</td>
<td></td>
<td></td>
<td>MD, Prof. of botany and medicine, Würzburg</td>
<td>Dir. BG Würzburg</td>
</tr>
<tr>
<td><strong>Hornschuch, Christian Friedrich</strong></td>
<td>1793–1850</td>
<td>1815</td>
<td>1814</td>
<td>pharmacist, Coburg</td>
<td>Dir. BG Greifswald</td>
</tr>
<tr>
<td><strong>Jan, Georg</strong></td>
<td>1791–1866</td>
<td>1816</td>
<td>1818</td>
<td>Prof. of botany, Parma</td>
<td>Dir. BG Parma, 1816</td>
</tr>
<tr>
<td><strong>Kunze, Gustav</strong></td>
<td>1793–1851</td>
<td>1816</td>
<td>1818</td>
<td>med. stud., Leipzig</td>
<td>Dir. BG Leipzig, 1837</td>
</tr>
<tr>
<td><strong>Lehmann, Johann Georg Christian</strong></td>
<td>1792–1860</td>
<td>1816</td>
<td>1819</td>
<td>MD, lecturer of botany, Copenhagen</td>
<td>Dir. BG Hamburg, 1821</td>
</tr>
<tr>
<td><strong>Martius, Carl Friedrich Philipp (v.)</strong></td>
<td>1794–1868</td>
<td>bef. 1817</td>
<td>1815</td>
<td>MD, member of the Bavarian Academy, Munich</td>
<td>2. Conservator BG Munich 1820; Dir. BG Munich, 1832</td>
</tr>
<tr>
<td><strong>Meyer, Ernst Heinrich Friedrich</strong></td>
<td>1791–1858</td>
<td>bef. 1822</td>
<td>1819</td>
<td>MD, PL, Göttingen</td>
<td>Dir. BG Königsberg, since 1826</td>
</tr>
<tr>
<td><strong>Nees von Esenbeck, Christian Gottfried</strong></td>
<td>1776–1858</td>
<td>1815</td>
<td>1816</td>
<td>MD, Sickershausen near Würzburg</td>
<td>Dir. BG Bonn, 1818; Dir. BG Breslau 1830</td>
</tr>
<tr>
<td><strong>Sadler, Joseph</strong></td>
<td>1791–1849</td>
<td>1816</td>
<td>1821</td>
<td>MD, lecturer of chemistry and botany, Pest (Hungary)</td>
<td>Curator of National Museum, Pest; staff member BG Pest</td>
</tr>
<tr>
<td><strong>Schlechtendal, Diederich Franz Leonhard von</strong></td>
<td>1794–1866</td>
<td>1817</td>
<td>1820</td>
<td>med. stud., Berlin</td>
<td>Curator BG Berlin, Dir. BG Halle, 1833</td>
</tr>
</tbody>
</table>

SCB – Society of Corresponding Botanists; RBS – Regensburg Botanical Society; Dir. – director; BG – Botanical Garden; MD – Medical Doctor; med. stud. – Medical student; bef. – before; a. – after; PL – Private Lecturer (Privatdozent)

According to *Index collectorum*, there were some more collectors of the Senckenberg Herbarium, who were members of the Society of Corresponding Botanists, for example Heinrich Christian Funck, Adelbert von Chamisso (1781–1838), Gustav Kunze or Carl Ernst August Weihe (1779–1834).26

The prefaces of some botanical monographs of the first half of the 19th century show the intensive cooperation between the actual authors and their colleagues, who provided plant material or notifications. In the preface of the *Bryologia germanica* (first part appeared in print in 1823), the authors Nees von Esenbeck, Hornschuch, and Sturm specified a lot of contributors by name to thank them for their assistance. You could read the enumeration like an excerpt from the index of members of the society.27

Finally, the members helped each other to found and develop botanical gardens. Only a few years after founding the society, several members, who had been pharmacists or students of medicine when

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they joined the society, held a leading position at universities or botanical gardens. Here, they were responsible for exchanging plant material on a completely different level.\textsuperscript{28} For instance, in 1818, Christian Friedrich Hornschuch, pharmacist in Coburg, got an employment as \textit{demonstrator botanices} at the University of Greifswald. The former student of medicine Gustav Kunze became an associate professor of medicine in Leipzig in 1822. In 1835, he was an associate professor of botany and two years later director of the Leipzig botanical garden.\textsuperscript{29} Johann Georg Christian Lehmann was responsible for the foundation of the Hamburg Botanical Garden in 1821.

\textbf{(5) Summary}

The Society of Corresponding Botanists, defined by its statutes, was probably active until the mid-1820s (approximately ten years). There were several possible reasons why it finally stopped existing. Nees von Esenbeck assumed, that many members preferred the work of their new employments and that especially the young members started a family.\textsuperscript{30} However, bit by bit, the society disappeared, but the contacts were still cultivated and extended.

The work of this network is an example of how the exchange of botanical knowledge and material operated at the beginning of the 19\textsuperscript{th} century – beyond educational institutions such as universities and academies. At the beginning, the little group of teachers and students was able to work as a society because after the end of the Napoleonic wars, many students and scientists wished to exchange their knowledge with other like-minded people, but at that time there was neither a specialized periodical\textsuperscript{31} nor a central exchange institution in Germany.

The seed sowed by the Franconian Society of Corresponding Botanists subsequently sprouted in several ways.

a) the contacts proved to be stable for a long time and very useful for all who worked with the society,

b) the development from a botanical layman into a professional scientist helped many former members to get a responsible position at universities and other educational institutions,

c) years later, several members helped to found new botanical associations which operated regionally, for instance in 1834, Theodor Friedrich Ludwig Nees von Esenbeck together with the teacher Philipp Wirten (1806–1870) founded the Botanical Association at the Middle and Lower Rhine (Botanischer Verein am Mittel- und Niederrhein).

With this in mind, the term “Pflanzschule” in the title means as much as “Seminarium“.

\textsuperscript{28} How the exchange of material (plants, seeds) and knowledge (publications, correspondence, journeys) took place in detail in subsequent times, show the annual reports on the Bonn botanical garden by Nees von Esenbeck (1818–1829), which are collected in Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin-Dahlem. In 1819, Nees von Esenbeck wrote to the Prussian minister of education Karl Sigmund Freiherr von Altenstein, referring to several suppliers of living plants. Even though there are some suppliers unknown by name, you can gather from the appointment dates of the particular directors that: here, the former members of the society were exchanging plants and seeds within their institutions.

\textsuperscript{29} Gustav Kunze became a full professor of botany at Leipzig University in 1845.

\textsuperscript{30} Nees von Esenbeck (1838), p. 12.

\textsuperscript{31} The \textit{Regensburgische botanische Zeitung} appeared in print until 1807; the periodicals by Heinrich Adolf Schrader existed from 1799 to 1810: \textit{Journal für Botanik}, Göttingen 1799–1803, 5 vols. and \textit{Neues Journal für Botanik}, Göttingen; Erfurt 1805/06–10, 4 vols.